

**VEXcode VR Alpha**  
**Lesson 4: Energizing the Magnet**

**Direction:** Select the correct answer for each item.

1. In the VEXcode VR, which of the following items can the electromagnet detect?
  - A. Apples
  - B. Balls
  - C. Cubes
  - D. Disks
  
2. What is the purpose of the electromagnet in the VEXcode VR?
  - A. It is used to move from one location to another.
  - B. It is used to pick and drop disks with metal cores.
  - C. It is used to identify the color of disk that was selected.
  - D. It is used to identify the distance between the electromagnet and disk.
  
3. Which of the following are the electromagnet's different modes?
  - A. Drag and Drop
  - B. Color and Drop
  - C. Pick and Drop
  - D. Boost and Drop
  
4. Which of the following best describes a Drop mode?
  - A. It moves the object that the electromagnet is holding from one point to another.
  - B. It releases the object the electromagnet is holding.
  - C. It identifies the color of the object and releases it if the condition has been met.
  - D. None of the above.

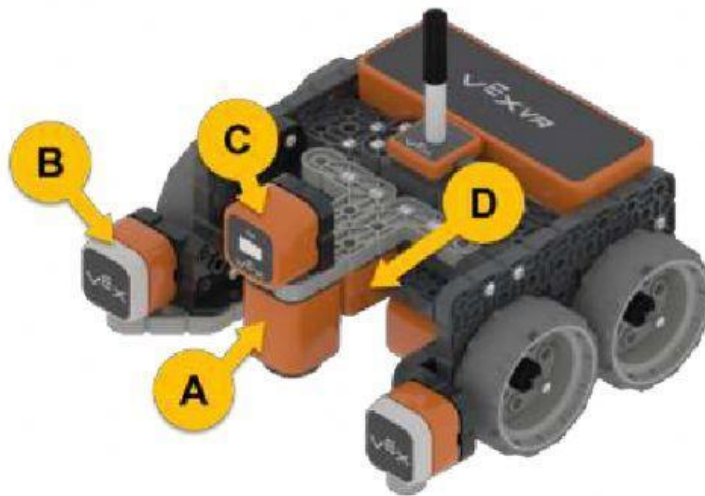
5. What does the energize electromagnet mean?



- A. It sets the electromagnet to either of the two modes.
  - B. It sets the electromagnet to move the VR robot from one point to another
  - C. It sets the electromagnet to use its Eye sensor to identify the color of object and releases it if the condition has been met.
  - D. None of the above.
6. What happens if the electromagnet is set to boost while it is near a disk?
- A. The electromagnet allows the robot to move to a different location at a faster speed.
  - B. The electromagnet can now identify colors of great intensity.
  - C. The electromagnet pulls all of the disks on the playground.
  - D. The electromagnet attracts the disk that is near it.
7. Which of the following best describes Mars Rover's robotic arm?
- A. It is also called as the rover arm.
  - B. It is also called as IDD or Instrument Deployment Device.
  - C. It helps scientists in holding or maneuvering rocks and soil.
  - D. All of the above.
8. Which of the following statements is TRUE about the comment block?
- A. It allows programmers to write the information about their program.
  - B. It allows others to understand the programmer's code.
  - C. Both A and B.
  - D. None of the above.

9. To which part of the VR robot is the electromagnet attached?

- A.
- B.
- C.
- D.



10. The program below has a bug. Which of the following is most effective in fixing this problem?



- A. Remove the set drive velocity.
- B. Decrease the value of the drive velocity.
- C. Change the mode of the electromagnet.
- D. Add a wait (1) seconds block after the energize electromagnet block.